



Choose  
the future

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Choose  
**BRAUMS**  
"ITS" Moving Traffic

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**addinsight**



Reliable and robust

Forecasts route travel times

Intelligent traffic management

Easy to use

Provides useful data

## WHAT IS ADDINSIGHT?

Addinsight can provide road authorities with an unprecedented insight into the performance of their road network without significant expenditure on hardware. Traffic management centre (TMC), operational and planning staff will all benefit from the system and its outputs. Instead of being stored in isolation on a cloud, the system resides on the road authority's own network and can be easily adapted to interface with other data sets or systems.

## Key Features

### Bluetooth MAC capture, processing and analysis

- Background software processes and aggregates all of the data before uploading it all into a system database.
- BRAUMS field hardware (BIO) can transmit our message format, any capture device can be used.

### Arterial and freeway incident detection / congestion management

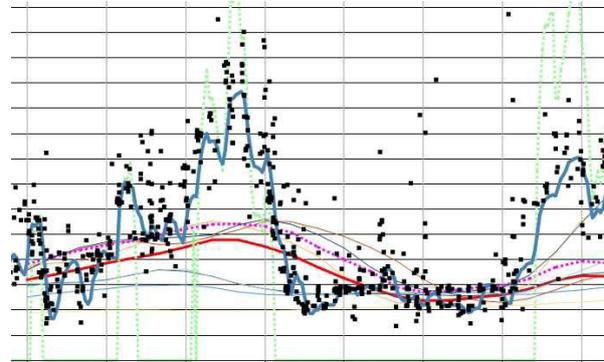
- Travel times on pre-defined road sections are calculated every 30 seconds and compared against historic travel time profiles to identify abnormalities.
- The system uses unique congestion indicators to prioritise suspected incidents.
- TMC staff can constantly monitor information via a map or table interface.

### Addinsight Smartphone App – Virtual VMS System

- The virtual VMS system automatically activates Bluetooth beacons on the approach to a potential incident and transmits real-time delay information.
- Motorists with the app installed will receive an audio alert detailing the location and type of incident plus the expected additional delays. Once the congestion clears, the system automatically stops broadcasting.

### Route travel time predictions

- Using a combination of live and historic information, route travel times can be forecast to provide constant comparisons between alternative routes.



Live comparison against historic data

### Interface with STREAMS ITS Platform

- Via the new STREAMS interface, route travel time data can be displayed on VMS signs to suggest alternative routes or can be used to trigger other STREAMS stimuli.
- Existing STREAMS users will automatically have access to this functionality.

### Origin-Destination (O-D) and Select Link Analysis (SLA)

- The processed Bluetooth records can be analysed using numerous criteria to extract aggregated O-D matrices for any combination of Bluetooth sites.
- SLA allows practitioners to observe the routes used by vehicles before and after they pass through selected sites. It can be used to better understand why vehicles use particular roads or turns and can help TMC operators decide the most appropriate detour routes if an incident occurs.

### SCATS® VS (flow) and History (phasing) data analysis

- The system loads this information from SCATS® into the database to allow trends and other impacts to be analysed and compared alongside the Bluetooth data.

### Network and subarea statistics

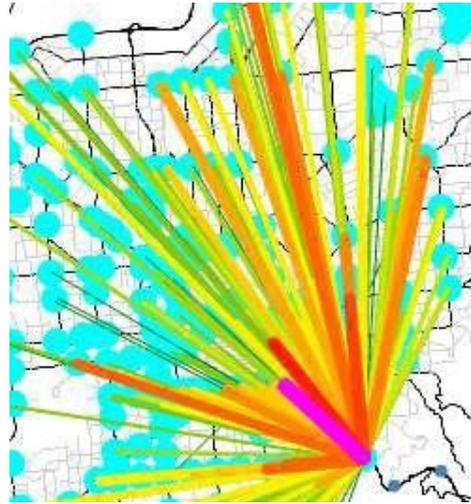
- Using the map interface within the software it is possible to extract statistics about the entire network or for just a sub area.
- The three main outputs are total vehicle-kilometres travelled, total travel time (veh-hrs) and total delay (veh-hrs). These use a combination of the Bluetooth travel time data and SCATS® VS data to derive the statistics which can be used for standard network performance reporting or even to measure the delay cost of a specific incident.

# Additional benefits

Addinsight provides open access to most of the system's data tables to allow your organisation opportunities to interface it with websites or other data sets.

For example, the South Australian Government extracts live travel time information from the system database to provide the public with delay information on Traffic SA ([www.traffic.sa.gov.au](http://www.traffic.sa.gov.au)).

Using the STREAMS interface, TMC staff can set up automated stimuli based on the Bluetooth data. This could be to activate a camera feed, display travel time information of a VMS sign or to flush a queued intersection approach.



Origin Destination Mapping

# Software system components

Addinsight comprises several different software components to provide all of the system features.

## Planning Desktop Application

- Aimed at planning staff that need the flexibility to analyse historical data from both Bluetooth and SCATS® data sets.
- Useful for analysis of data before and after projects, trends, network-level statistics, origin-destination matrices and select link analysis. It contains numerous user-configurable filters and aggregation options to export data as charts, maps and tables.

## Real Time Desktop Application

- Designed for TMC and operational staff to manage congestion, identify incidents and to monitor the status of Bluetooth receivers.
- Easy point and click access to prioritised outputs from the system.

## Addinsight Smartphone App

- Made for compatible Android and iOS devices, the app gives you the ability to communicate information to people while they are driving via spoken alerts.
- Most functionality is fully automated by the system, allowing TMC staff to focus on managing incidents.

## Addinsight Server

- This is where all the magic happens. The server does all of the processing and analysis of the incoming data to identify incidents and manage the broadcasting of data for the app.
- Your data remains stored in a locally hosted SQL Server database.



Route analysis for a specific turn

Site ID	Map	Data Charts and Tables
2	Start Date: 17/07/2014	End Date: 17/07/2014
Bluetooth OD	Time Period Filter	
Two Way	Start Hr: 0 Min: 0	
Origin: 6	End Hr: 24 Min: 0	
Destination: 7	Period Duration (Minutes): 5	
Must pass through this site: 6	Days of Week: Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday	
OD Pair: 6-7 Link	Include School Hols: <input checked="" type="checkbox"/>	
Regions: ACC, ALL, BLUETH	Include Public Hols: <input checked="" type="checkbox"/>	
	Include Detectors: <input type="checkbox"/>	Plot Individually: <input type="checkbox"/>
	ALL: 5, 10, 15, 20	
	1: 6, 11, 16, 21	
	2: 7, 12, 17, 22	
	3: 8, 13, 18, 23	

Addinsight Planning user inputs



Route travel time VMS



Traffic SA website

## Addinsight Commercialisation Overview

The Addinsight system is a suite of software applications containing the following components:

- Addinsight Engine – backend services that process and analyse the data, preparing it for client applications
- Addinsight Real Time – a client application tailored to the needs of a Traffic Management Centre
- Addinsight Planning – a client application that allows custom analysis of historical and real time data for planning purposes
- Addinsight Smartphone Application for Android (4.3 onwards) and iOS (iPhone 4S onwards)
- Addinsight API – a RESTFUL API to allow data to be shared with external applications, such as websites

Addinsight is not a cloud-hosted system. Instead, it needs to be hosted by the data owner. The system requires Microsoft SQL Server Standard Edition and a server to host the Addinsight Engine. These are not included as part of Addinsight.

Addinsight can be provided with hardware which utilises an open data protocol. BRAUMS can recommend hardware (BIO and/or BISCIT) based on site conditions such as the availability of existing electrical and communication infrastructure in use locally.

Payment of the annual fee entitles the data owner to one year of data collection and access to the system software. It also includes all general system updates and new features at no additional cost within this time period. The annual fee includes basic email support. Additional fees will apply for training and phone support.

If the annual fee is not renewed, the data owner will not be able to capture any additional data and the Addinsight engine will stop operating. The data owner will still be able to use the clients and Addinsight API to analyse the existing data collected by the Addinsight Engine. The data owner will not be entitled to any software updates or ongoing support.

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## Interested in more information?

Addinsight has too many features to list in a flyer and we are more than happy to provide you with a live demonstration. If that's not enough to convince you, we can also supply the system for a short term trial to test its capabilities on your own road network.

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